

TABLE 3.—Maximum free-air wind velocities (m. p. s.), for different sections of the United States, based on pilot-balloon observations during October 1943

Section	Surface to 2,500 meters (m. s. l.)					Between 2,500 and 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station
Northeast <sup>1</sup> .....	46.9	w.	1,020	29	Portland, Maine.....	43.8	wnw.	5,000	7	Caribou, Maine.....	71.2	sw.	11,200	3	Mt. Washington, N. H.
East-Central <sup>2</sup> ...	33.9	nw.	2,160	19	Greensboro, N. C.....	38.3	nw.	4,150	20	Washington, D. C.....	60.8	ws.	11,010	4	Raleigh, N. C.
Southeast <sup>3</sup> .....	27.6	w.	2,320	16	Mobile, Ala.....	38.1	w.	4,960	31	Charleston, S. C.....	48.3	w.	14,640	21	Mobile, Ala.
North-Central <sup>4</sup> ..	33.4	s.	1,720	13	Alpens, Mich.....	43.2	w.	4,790	29	Muskegon, Mich.....	59.8	wnw.	16,330	27	International Falls, Minn.
Central <sup>5</sup> .....	38.8	ne.	1,650	11	Des Moines, Iowa.....	43.1	nw.	4,840	15	Wichita, Kans.....	58.4	ws.	9,440	31	Wichita, Kans.
South-Central <sup>6</sup> ..	40.0	ws.	2,430	30	Abilene, Tex.....	43.6	wnw.	4,220	15	Little Rock, Ark.....	62.5	nw.	14,190	25	Big Spring, Tex.
Northwest <sup>7</sup> .....	54.6	s.	1,210	24	Tatoosh Island, Wash.	48.0	sw.	4,780	24	Burns, Oreg.....	78.8	ws.	12,990	26	Billings, Mont.
West-Central <sup>8</sup> ..	43.0	sse.	2,500	26	Sacramento, Calif.....	49.2	sse.	2,620	26	Sacramento, Calif.....	67.0	sw.	9,220	17	Redding, Calif.
Southwest <sup>9</sup> .....	43.2	ssw.	1,900	18	Winslow, Ariz.....	44.0	nw.	4,840	11	Las Vegas, Nev.....	60.0	w.	11,050	22	Phoenix, Ariz.
						s.	4,530	26	Sandberg, Calif.....						

<sup>1</sup> Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.

<sup>2</sup> Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.

<sup>3</sup> South Carolina, Georgia, Florida, and Alabama.

<sup>4</sup> Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.

<sup>5</sup> Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.

<sup>6</sup> Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.

<sup>7</sup> Montana, Idaho, Washington, and Oregon.

<sup>8</sup> Wyoming, Colorado, Utah, northern Nevada and northern California.

<sup>9</sup> Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.

## RIVER STAGES AND FLOODS

By C. R. JORDAN

Precipitation during October as compared with normal was variable over the entire country. Amounts were well above normal over the northeastern section and extending as far south as Maryland and northeastern Virginia. The Ozark region, the North Central Plains, and the far Northwest also received above normal precipitation. Amounts were very scanty in sections of the Southwest and also the Southeast.

Unusually low river stages continued during October in most of the southern two-thirds of the country, especially in the southeastern section.

October was the second consecutive month with no floods of consequence reported in the United States. There were two periods of rather heavy rainfall over the Northeast during the month but the initial river stages were low and the soil was in most cases unusually dry with the result that bankful stages were reached only in a few headwater streams.

**Atlantic Slope drainage.**—Heavy rains, resulting in amounts of from 2 to 5 inches over much of the area, occurred in the northeastern section of the country from October 16–19. Flash floods resulted in some sections of Maine, especially in the Little River at Belfast, Maine, which carried away the dam providing the municipal water supply, a 200-foot steel bridge, and four smaller bridges, as well as causing some damage to streets and cellars in the vicinity. The Sandy River near Farming-

ton overflowed its banks and caused some damage to roads and cellars. Slight damage also resulted in the Androscoggin Valley. No estimate of the damage sustained has been compiled.

Rainfall of from 2 to 3 inches occurred again over the Northeast from October 26–28, and produced moderate rises in most of the streams. The Susquehanna River exceeded flood stage slightly at Oneonta, N. Y., on the 27th and the Tioughnioga River at Whitney Point, N. Y., reached a stage a little in excess of the established flood stage on the 29th. No damage resulted.

**Mississippi Basin.**—The Mississippi River just reached flood stage (12 feet) at Louisiana, Mo., on October 3 and 4. This stage resulted from the manipulation of Dam No. 24 and no damage occurred.

## FLOOD-STAGE REPORT FOR OCTOBER 1943

[All dates in October]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE					
Tioughnioga: Whitney Point, N. Y.---	<i>Feet</i> 12	29	29	<i>Feet</i> 12.6	29
Susquehanna: Oneonta, N. Y.-----	12	27	27	12.1	27
MISSISSIPPI SYSTEM					
<i>Upper Mississippi Basin</i>					
Mississippi: Louisiana, Mo.-----	12	3	4	12.0	3-4